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ABSTRACT

This review provides a historical overview of available management techniques for higher education. It describes the techniques of Management by Objectives, Zero-Based Budgeting, Strategic Management, and Total Quality Management and the ways they can be applied to higher education. The paper discusses institutional management practices defining different government steering policies leading to the different types of decision-making models in higher education systems. Some of the basic concepts of higher education are outlined, including the relation between the mission of higher education and financing, the organizational structure of an institution, and other aspects of financial management. A section also provides examples of changes in management of higher education with special reference to financial management in selected industrialized countries and African countries. Some of the lessons learned from different experiences are summarized. (Contains 10 references.) (SLD)

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No. 28

Management of higher education with special reference to financial management in African countries

Bikas C. Sanyal
Michaela Martin

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Management of higher education with special reference to financial management in African institutions

Bikas C. Sanyal
Michaela Martin

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Preface

Higher education is at the crossroads all over the world. Dramatic changes in the geo-political order, globalization of society and the economy and the technological revolution, especially in the domain of information technology, have affected the system of higher education tremendously. Loss of monopoly of the institutions of higher education in creating and disseminating knowledge and the diminution of public resources for higher education are subjecting the system to critical analysis and demands for transparence and accountability. In Africa the system is confronting more serious financial crisis because of the overall economic crisis and the imposition of structural adjustment programmes by the lending agencies. According to one study the system is in "an all pervading state of physical, managerial and intellectual dilapidation". In spite of the crisis, the educational leaders of the region do believe that better utilization of existing resources through better management could go a long way in meeting the financial crisis.

The review addresses this issue. It gives a historical overview of available management techniques. Starting with the now rejected Planning, Programming and Budgeting System (PPBS) it describes briefly the techniques of 'Management by Objectives' (MBO), 'Zero-based Budgeting', 'Strategic Management' and 'Total Quality Management' (TQM) and the way they can be applied to higher education management. The use of performance indicators is becoming increasingly popular for improving management. The different types of performance indicators applicable to higher education are provided in this section. It is argued that management practices are dependent on the government steering policies of the country. Four types of steering policies have been identified, ranging from complete autonomy to complete control by the state. These four types of steering

policies have resulted in four types of decision-making models in the higher education institution, from the bureaucratic model to the entrepreneurial model. The context of financial management is then discussed within the framework of the system's/institutions's mission and its organizational structure. Seven procedures of financial management have been identified for a given organizational structure. Five methods of government finance of higher education have been observed. This discussion is followed by a discussion of seven main functions of financial management, starting with acquisition or mobilization of finance and ending with the protection of finance. Ten sources have been identified for the institutions for funding themselves to reduce the state burden. Indicators related to the sources of income, financial strength of the institution and short-term liquidity and solvency are listed in the management function, production of financial indicators.

Changes in the practice of institutional management in general and financial management in particular, introduced to improve utilization of existing resources, have been given from selected industrialized countries, e.g. Australia, France, the Netherlands and the United Kingdom. There are examples of good practices in certain universities of Africa, e.g. Botswana, Côte d'Ivoire, Ghana, Kenya, Nigeria, and Senegal. Our list is not exhaustive, but the lessons learned from these good practices demonstrate that good management depends upon flexibility, transparency, accountability and autonomy with responsibility. Good information is essential for good management, and training of university managers and academic administrators in managerial skills is becoming increasingly important. Twelve lessons have been listed to conclude the paper. These are: the importance of management capacity in the institutions, the need for management expertise, the need to pool expertise at the international and/or regional level, the need for internal understanding and acceptance, analysis of management structures and procedures, better linkage between the institution and its environment, the need for accountability measures, financial planning and budget, consideration of the evolution of the financial management process, increasing efficiency, choice between centralization and decentralization and, finally, maintenance of the momentum for change.

Management of higher education with special reference to financial management in African institutions

by Bikas C. Sanyal
Michaela Martin

1. Introduction

Higher education is at a critical stage all over the world today. Dramatic changes in the geo-political order, globalization of the economy and society, the explosion of scientific knowledge and technological development, especially in the area of informatics and bio-technology, artificial intelligence and telematics, are affecting the education system in general, and the higher education system in particular. Moreover, the emergence of new socio-economic structures, creative destruction of existing power relations, new ways of producing and doing things and changes in the value system are also affecting the content, method and structure of higher education.

The importance of knowledge for society has led to the diminution of the monopoly of the formal higher education system as the sole producer of knowledge, and the system is now facing increased competition with other agencies, including private industries. Higher education has been diversified in terms of delivery systems, on the one hand, and in terms of control, on the other. Public resources for higher education are on the decrease all over the world and the product of the system is less and less for the public good. Stakeholders of higher education, the students, the employers and the government, are being increasingly critical of the institutions of higher education. Everybody demands 'value for money'(1).

The situation in Africa has not been free from the effects of these changes in the international context. In addition to the economic uncertainty, political and social upheavals have affected higher education in Africa. In several countries in the continent, higher education has been suffering from

considerable destruction of infrastructure and facilities through civil wars. Campuses have been abandoned. The severe economic recessions of the last two decades and the structural adjustment programmes imposed by the lending agencies have had devastating consequences for the universities and other institutions(2). "In fact, the first impression one gets of an African university campus in the 1990s is one of an all-pervading state of physical, managerial and intellectual dilapidation", according to one of the UNESCO-BREDA studies(3)

Diminishing financial resources from inside and outside the country have affected critical inputs: books, journals and equipment. "This is also manifested in most African universities in the squeeze on student accommodation, collapse or decline of municipal services, crowded classrooms, teaching reduced to chalk and talk, frustrated teachers who must hustle for additional income, libraries where acquisitions votes have been nominal for years on end, and impoverished research"(2, p. 146).

In spite of the crisis, the universities have shown a remarkable capacity to survive, as one author has noted:

> "*Despite the brains that have been drained out of them over the years, and the compromises they have been compelled to make with their own standards, (these) universities remain great national storehouses of trained, informed, inquiring and critical intellects, and the indispensable means of replenishing national talent. They have considerable reserves of leadership and commitment on which to draw. Impoverished, frustrated, dilapidated and overcrowded as they may be, they have no substitutes*"(4).

A voice of hope is also heard from another corner:

> "*When resources are limited, the task is how best to transform even the shortages into meaningful educational and institutional services. Allocation of scarce resources demands a commitment to realism and a determination to face a hard future and make the best of it. Nevertheless, the university in Africa should continue to be propelled by the quest to manage not just for survival, but also for excellence*"(2, p. 155).

The International Institution for Educational Planning of UNESCO, having foreseen the problems facing the higher education institutions in the developing countries, especially those in Africa, launched a research programme on the problems of higher education management at the institutional level to create a knowledge base on the methods of better utilization of existing resources.

> "*The IIEP research began with an extensive literature review and creation of an information base, the writing of a series of papers on methodological issues and the preparation of 14 in-depth case studies on different types of innovations. The results of these activities were used to prepare a set of training materials for intensive training courses. The exchange of individual university experiences in managerial innovations in these training courses provided an additional knowledge base for IIEP*"(5, p. vi).

The present paper draws exclusively from this knowledge base.

2. The structure of the paper

Looking for ways and means to improve management of higher education institutions, we shall first give an overview of the management concepts and techniques in higher education, followed by institutional management practices defining different government steering policies leading to the different types of decision-making models in the higher education systems. This section will be followed by some basic concepts of financial management, e.g. the context of higher education financial management, including the relation between the mission of higher education and financing, organizational structure of an institution and its relation with financial management procedures and mechanisms of finance, the main functions of financial management and, finally, a section giving the examples of changes in management of higher education with special reference to financial management in selected industrialized countries and African countries.

3. Management concepts and techniques

In many countries, reflection on the practice of higher education management has taken place within a context of an ideological shift with regard

to public policy. Policy-makers have increasingly attempted to diminish state intervention and encourage entrepreneurial behaviour and accountability in the public sector. The experience in the USA provides a useful overview of a number of the concepts and techniques available to higher education management.

Particularly during the late 1960s and early 1970s, several systems for university management appeared in the discussion among practitioners and experts on higher education. These systems were derived from concepts developed either for state agencies or, more often, borrowed from those existing in the literature on private sector enterprises. The main focus of all these concepts is their emphasis on the clarification of institutional goals and objectives as a basis for the systematization of subsequent managerial action.

During the mid-1960s, the Planning Programming and Budgeting System (PPBS) was imposed on all Californian state agencies, including higher education institutions. It prescribed a rather complex, linear procedure of establishing an institutional mission and detailed quantifiable targets to be implemented through annual budget specification. However, due to its complexity and high staff and computing costs, PPBS was quickly succeeded by Management by Objectives (MBO).

MBO was based on the assumption that the lack of clearly stated institutional goals constituted a major obstacle to increased institutional effectiveness. These institutional goals were first to be clarified by the academic community and then to be expressed in quantitative objectives to stand as standards of performance. Such standards should apply equally at the overall institutional level as well as to individual staff members.

MBO was followed during the mid-1970s by the Zero-base budgeting approach. This third system required that the goals of an organizational unit should determine the budget and not the budget determine the goals to be achieved.

By the end of the 1970s, the concepts of strategic planning first and management later, borrowed from the literature for business enterprises, came up in the discussion on higher education management. The concept arose within a context of diminishing public resources, the expectation of declining student numbers and, therefore, increased competition among institutions amounting to a threat to survival. The new and fundamental idea

of strategic planning was that institutional planners and administrators should be continuously outward looking, assess changes in their relevant environments and plan for these changes with a long-term perspective.

Strategic planning can be described as having the following major components:

- institutions identify external threats and opportunities through environmental scanning of political, economic, social, demographic and cultural change in the environment;
- institutions undertake a continuous assessment of internal strengths and weaknesses with regard to research and teaching programmes, finances, facilities, resources, as well as management processes and institutional values;
- external opportunities and threats are related to institutional strengths and this two-fold evaluation process leads to the determination of the basic mission of the institution, that is, the statement of its basic purpose and its distinctiveness as opposed to other institutions of higher learning in the country and abroad;
- the mission is translated into long-term goals which are broad statements on the fundamental directions for the future; goals are then detailed in more operational and short-term objectives specifying clientele groups, the mix of programmes and services, as well as the comparative advantages of these over competing institutions;
- the 'mission statement' which summarizes these functions and priorities serves to inform potential clients (students and sponsors of research or consultancy) and government funding agencies of the particular niche that the institution fills in the national higher education system.

Strategic planning and management is process oriented:

- it calls for participative approaches in the determination of the organization's mission, goals and objectives, as well as the establishment of a set of measures by which the organization can test the achievement of these goals and objectives;
- major institutional stakeholders are expected to be involved in the internal and external assessment process;

- departments may be requested to develop their own strategic plans which will be integrated into the overall strategic plan of the institution.

It is often emphasized that it is the process of strategic management which is more important than the written plan being developed.

Since the mid-1980s, the concept of Total Quality Management (TQM) has emerged. Again, it is a concept borrowed and adapted from private sector management. Total quality management for higher education institutions is based on many of the assumptions inherent in the strategic management concept. It takes up the concern for improved quality of higher education output, a concern widely expressed by many governments and their agencies and discussed in the literature on higher education management.

It emphasizes the importance of setting up a mission which describes, in a detailed manner, the organization's specific beneficiaries, their needs and the means to attain the best customer satisfaction. TQM, like strategic management, is process oriented. It is characterized by teamwork, systematic analysis of the problems, and the intensive use of information to achieve the object of continuous improvement of services with regard to the beneficiaries' needs. Also, TQM is participative and stresses the need for staff development. It emphasizes the setting up of teams, including those who will actually implement the change or perform the work, and those who share ownership in the process being planned or improved.

In recent years much attention has been focused on the development of performance indicators for higher education systems as measures of accountability and effectiveness. Increasingly, governments are insisting on performance indicators to help them decide whether the substantial public funds being allocated to higher education are being efficiently and effectively used.

Usually based on quantitative information, these indicators assist in checking on the appropriateness of the mission of a system or an institution and the extent of fulfilling the mission. Performance indicators can be used to show five aspects of the performance of higher education:

1. The quantitative dimensions of the main inputs (students, staff, buildings, equipment, books, money, etc.) into the system/institution.
2. Main outputs in quantitative terms (student places, graduates, research publications, patents, etc.).
3. The relationship between inputs and outputs (student-years per graduate, student/staff ratios, cost per graduate, research publication/patents per faculty member, so-called efficiency measures).
4. The quality of the system's/institution's activities (examination success rates, employability of graduates, impact of research on national and /or international academic community and/or productive/management process); and
5. processes within the system/institution that may be amenable to management decisions (amount of service teaching by one institution/department for another, average length of time faculty takes to return student assignment, degree of student satisfaction with instructions, etc.).

The last three aspects can be combined to be called 'process indicators', while the first and second are called 'input' and 'output' indicators, respectively.

4. Institutional management practices

It is clear that institutional management is significantly influenced by the type of governmental steering policy in force. Four major types of governmental steering policies for higher education have been articulated:

- Systems operating under self-regulation with a broad framework of accountability with greater use of free market incentives, which are found in Canada, the Netherlands, the United Kingdom, and the USA.
- Systems in transition from centralized planning to self-regulation, which are found in the Nordic countries.
- Systems operating under self-regulation but experiencing difficulties, e.g. the Russian Federation and some Eastern European countries; and
- systems under direct centralized planning and control, as seen in some Eastern European and some continental European countries (e.g. Austria, France, Italy, Portugal) and a large number of developing countries, especially in Africa.

These four types of steering policies have led to four types of decision-making models in the institutions of higher education, including decision-making in financial management.

The first and the longest surviving model is called the collegial or consensus model, where:

(i) Decisions are made by academia on a democratic basis through councils and/or committees based on long deliberations;
(ii) the head of the institution has less power and remains in his post for a short period; and
(iii) the administration is generally weak and provides mainly logistical support.

The implications of this model are slow and soft decisions, individual academic freedom and absence of university-wide objectives.

The second model is called the political decision model, where:

(i) Decisions result from permanent negotiations among the stakeholders (professors, students, administrative staff, government, business, local community, industry and labour unions);
(ii) the negotiations in this model may take more time and are more complex than the first; and
(iii) although university-wide objectives exist, individual academic freedom is less.

The third model is called the bureaucratic model. Its characteristics are:

(i) Nationwide systems for higher education, strict government rule for recruitment, promotion, salary structures and study programmes;
(ii) administration is strong: professors and heads of institutions are pure executives;
(iii) it is conservative, uniform and less innovative, suffers from less initiative and from prevalence of rules over results.

The fourth model is called the entrepreneurial model. The institutions in this group are:

(i) Entrepreneurial and autonomous;
(ii) supply services of teaching, research and consultancy and are paid by their customers, namely, students, government, enterprises, regional/local community, etc.;
(iii) competitive and are concerned with cost-effectiveness and accountability, multi-source funding, strategic alliances and use of modern management techniques.

In practice, an institution will make a combination of the above four models to suit its own context(6).

5. The context of financial management in the institutions of higher education

The financial management of higher education operates within constraints determined by three main factors:

- the mission;
- the organizational structures;
- the sources and mechanisms of finance.

5.1 Mission

As mentioned above, for a large and complex system of higher education, the mission statement has the particular function of informing the potential clients (students and the sponsors of consultancy and research services) and the funding agencies of the government to examine the special role and place of an institution within the national system of higher education.

There is often a reciprocal relationship between mission and funding:

- an institutions's mission may influence the public funds it receives;
- however, the funds it obtains, and the way they are allocated, help determine its mission.

It is self-evident that the financial management of an institution ought to operate within its mission. An institution with a mission that emphasizes community service will not allocate resources in the same way that a major

research institution will, for example.

However, in practice, and possibly because they may be seen as a constraint on future flexibility, mission statements tend usually to be couched in very general terms and are often interchangeable between institutions.

5.2 Organizational structures

Reduced to the simplest terms, the organizational structure of a fully fledged institution of higher education consists of four areas:

- a central administration;
- centrally provided services;
- specialized teaching and research departments;
- non-academic services.

Even this simple model of the organizational structure of an institution allows for seven basic financial management procedures, as listed below:

1. all resources are received by the centre, and are allocated, managed and administered from the centre (the pure bureaucratic model);
2. strategic decisions are taken at the centre but routine decisions and implementation are made by departments (decentralized bureaucracy);
3. strategic decisions are taken at the centre based on a consensus within the framework of collective bargaining (political decision model);
4. income is top sliced for central administration and services: the remainder is allocated to departments to use in accordance with academic priorities (collegial model);
5. income is 'earned' by departments but administered from the centre (corporate entrepreneurialism);
6. income is earned by departments: it is 'taxed' to cover central administrative costs and the remainder is spent by departments according to the requirements of the external 'purchasing' agency (managed entrepreneurialism);
7. income is earned by departments and retained by them: they 'buy' central services as they are needed (liberal entrepreneurialism).

In practice, of course, resource allocation procedures are usually a mix of more than one model. For example, externally funded research often

requires somewhat different financial management procedures from the centrally funded core activities of the institution of higher education.

The models are best seen as points on a spectrum:

- at one extreme all resources – staff, space, and consumables – are allocated centrally;
- at the other extreme, faculties or departments are almost autonomous cost centres meeting their own requirements from income that they themselves have generated.

Some institutions of higher education are very near to the top end of this spectrum and others are at the bottom. Many African countries still have very bureaucratic systems of financial management imposed on them by governments, but everywhere there is some shift towards devolution downwards of financial management responsibilities.

Financial management has become increasingly concerned with what economists have come to call the 'principal-agent' problem. In other words, how does the person who controls resources persuade those using them to act in ways that are consistent with the objectives of the 'principal'? The larger and more complex an organization, the more difficult it is to do this.

In broad terms the decisions on how resources are to be allocated can be made in the institutions by different management procedures following the four decision-making models described in the previous section.

The role of financial management is different in the four cases:

- in the collegial management systems academic criteria tend to be paramount, and institution administrators are seen to be performing a supporting role – in extreme cases the institutions may be seen to be run for the benefit of its academic staff;
- with the political decision model, collective bargaining becomes dominant; the administration plays a consensus-building role;
- in bureaucratic management structures the roles are reversed, decision-making is hierarchical, the administration is dominant and academic staff are 'managed' by professional managers and administrators;
- in entrepreneurial organizations, individuals and departments best

able to generate income are dominant partners and the most important function of financial managers is to ensure that there are adequate incentives to encourage them to do so – customers decide.

5.3 Mechanisms of government finance

During the past 10 years, many countries have experienced a shift from input-based to output-based public funding of institutions.

In input-based funding systems, public funds are provided to meet the costs of the input into the institution, for example, staff salaries, equipment, consumable items, buildings. Institutional managers are required to spend the funds on the inputs for which they are provided, but within these constraints it is the institution which decides what outputs to produce.

Output-based funding pays the institution for the services it provides. In effect the government 'buys' services from the organization. It is for the institution to decide how to allocate resources between the various inputs to produce the contracted outputs.

It is important to appreciate that these shifts from input-based to output-based funding are occurring not only in higher education; most public services are experiencing similar developments. The shifts reflect ideological and technological changes that go far beyond higher education.

The implications for financial managers of a shift from input specification to output specification are very large indeed. It represents a shift in the power relationships between the institution and the external funding body, and also, within the institutions, between the managerial and the academic staff.

Broadly, there are five methods in which government can fund universities.

1. The institution submits a periodic (usually annual) budget based on its estimate of the costs of its commitments to staff salaries and other essential inputs. It may bargain with the government over the percentage of this budget which is to be met. The grants are 'earmarked' or 'hypothecated', which means that the university must spend the funds on the items specified by the government.

2. The institution receives a single block grant based on the grant received in the previous period plus an increment, and is free to spend this money as it wishes within very broad legal limits.
3. Funds are based on a formula reflecting past performance, but the university is able to spend the funds as it wishes once they are received. The basis of most formulae is student numbers (weighed by subject, level of study, etc.). But, increasingly, governments are trying to include in the formula a weighting to reflect the academic performance of the students, the quality of training and research undertaken.
4. The government buys academic services from the institution. This is similar to 3 above but funds are based on prospective future performance rather than performance in the past.
5. The institution sells its teaching, research and consultancy services to a wide variety of different customers, students, employers and public authorities.

Again, the actual mechanisms are often a combination of two or more of these models. In particular, various combinations of 3, 4, and 5 are often discussed. For example, formulae may determine much of the funding, while a proportion is determined by the 'sale' of incremental student places to the government. One much discussed possibility is student vouchers, whereby students pay fees but are reimbursed in whole or part by government grants.

However, it is usually possible to identify a dominant model corresponding to one of these ideal types.

Another important point is that most funding models are, in practice, incremental in that institutions receive last year's allocation plus or minus an increment, with differing consequences:

- when the increment is positive, there are few problems;
- when it is negative, there are usually considerable difficulties in allocating the cuts and firm financial management is needed if the effects are not to be randomly distributed (for example, staff reduction based upon individual departures rather than policy decisions) to the long-term detriment of the institution.

It is not possible to relate these external funding mechanisms exactly to the internal resource allocation procedures, but experience in many countries suggests that method 1 above and, to some extent, method 3, require a substantial measure of bureaucratic regulation to ensure that resources are spent as required by the government or central funding agency. Method 2, and some aspects of method 3, usually permit some degree of collegial management in which academic priorities are very influential. Methods 4 and 5 require in varying degrees market-orientated management in which entrepreneurialism and the satisfaction of market demands are rewarded(7).

6. Functions and practices of financial management

The main functions of financial management include:

- the acquisition or mobilization of resources;
- encouraging income-generating functions;
- management of cash reserves;
- the allocation of resources;
- production of financial indicators;
- the utilization of resources;
- evaluation and auditing;
- protection of finances.

6.1 The acquisition or mobilization of resources

The majority of resources are normally received from governmental authorities, or raised by tuition fees plus additions from a variety of other sources, such as the community, parents, charity, etc. While public subsidies are likely to remain the major source of funding for higher education in most countries, they are becoming increasingly insufficient to ensure the financial viability of higher education systems which are rapidly expanding under the pressure of rising social demand.

Even when government funding is forthcoming, it is felt to be disadvantageous for the institution to rely on a single financial source.

With less state support and limited opportunities to impose or increase fees, many universities have had to become involved in a wide spectrum of income-generating activities. In this context, it is important that university councils include representatives from business and industry in order to

strengthen the linkages important for forming partnerships and in order to develop marketing methods.

The following is a list of possible sources of funding:

- private students;
- variations of tuition fees;
- examination fees;
- residence fees;
- contracts for research, courses and consulting (usually a percentage of revenue earned goes to the Department concerned);
- intellectual property rights (patents and books);
- commercial activities (printing, software);
- investments in productive areas;
- endowments (this is a tradition in the USA and prestige universities in the United Kingdom and Japan);
- foreign aid.

Various routes have been followed to diversify funding sources. Traditionally, income is generated by undertaking research and service contracts on behalf of public and private companies. The returns on services such as consultancies and developmental work are expected to cover all costs and indeed to provide the institution with a net income.

In many countries public institutions are free to make use of these earnings, but in Germany and Denmark, for example, it has been necessary to amend the regulations governing the finances of institutions, or to make other special provisions to enable them to retain their outside earnings. However, it is obvious that countries which are predominantly agrarian or have a small modern industrial sector, have limited scope for service contracts.

Another traditional way of raising financial support from industrial and commercial firms is in the form of grants or scholarships for specific academic or professional programmes. As far as developing countries are concerned, direct donations have been strongest in Asia, where the establishment of foundations offering financial support for students has been common. Private foundations, for instance, have developed in Indonesia, Thailand and South Korea.

However, even under the most favourable scenario, these additional resources are not likely to represent a high proportion of institutions' budgets.

Any income-generating activities should be applicable to the modalities of a particular higher education institution, be demand oriented and locally specific. In addition, they should be tested by means of an experimental phase.

6.2 Encouraging income-generating functions

The previous function overlaps that of encouraging individuals and units in the university to generate income on behalf of the university as a whole and to reward them for doing so.

There are two ways in which individuals can be rewarded for undertaking activities that produce extra income:

- one is to treat such activities as part of the normal work programme of the university and to enable consultancy work to count as a criterion in applications for promotion or senior posts;
- the other is to allow individuals to retain a part of the income that is generated, either for themselves individually, or for the department or centre in which the individual has a specific interest.

6.3 Management of cash reserves

The extent of this function, management of the institution's cash reserves, depends largely on the overall legal framework within which the institution operates.

In countries where institutions have no financial autonomy and no cash reserves, obviously the function does not exist. However, as more and more countries move in the direction of decentralization and devolved budgets, this function becomes a very important one.

In countries with a well-developed banking system, properly managed cash reserves can generate a significant income for the institution. The management of the institution's income-generating enterprises is growing in importance. Bookshops, guest-houses, printing services, conference and

sports facilities, consultancy services, intellectual property rights and many other services which generate income, costs and cash balances need to be properly managed in the interests of the institution.

6.4 The allocation of resources

The allocation of resources reflects the priorities among all the activities of the university. In the short run, these decisions are highly determined by the resources the institution has already acquired, but over time more options for changing allocations may become available. The current resource constraints and decisions are reflected in the budget plans drawn up for the coming financial year.

A basic budget plan shows the amount of funds to be raised and the share that is expected to be spent on each of the individual budget heads. Some institutions are now keeping a certain proportion, 5-10 per cent, at the centre for strategic use, such as incentives, innovations and information system development. Also, some institutions are separating teaching and research funds.

The following are other measures that have been adopted:

- Developing the concept of an internal resource allocation authority (often a planning and resources committee) serving as an investor, to whom proposers of activities must present commercial and financial, as well as academic, justification;
- structuring the institution's activities and financial accounting records around cost/profit centres so that the entire university community is made aware of the cost of each activity and the sources of income which fund it;
- devolving financial responsibility and accountability closer to the operating units, as far as expertise and the information system permit, but not at the expense or abdication of all central control;
- adopting formula funding, often based on enrolments, output of graduates and other performance indicators – where governments use formulae for funding purposes, institutions often follow the same procedure for internal allocation and it may be necessary, when instituting formulae funding, to put aside some resources to assist certain faculties in the transition phase.

6.5 Production of financial indicators

As indicated before, generation of useful performance indicators is becoming of growing importance. Modern management systems depend upon comprehensive information, and a large proportion of the information needed concerns the direct or indirect use of financial resources.

Any new financial management system must take on the routine production of financial effectiveness and efficiency indicators. A more detailed list is given later.

6.6 The utilization of resources

Resource utilization is the phase where the budget plan is put into operation. Broadly interpreted, this task encompasses all the management activities of staffing, running the premises, ordering supplies and so on, which incur expenditures. Other activities, such as running a bookshop, hiring school premises or selling courses for a fee, which bring in additional income, may also be included.

The specific task for financial managers is monitoring the budget regularly throughout the year in order to compare actual income and expenditures under various budget heads with planned expenditures. If there are differences between the real income and expenditure, as is likely, it is the job of management to correct them. This may involve adjusting certain expenditure plans or exerting better financial control over internal budget holders, such as the heads of departments, in order to either curtail or stimulate spending.

It is here that an efficient management information system is important in keeping university leaders and administrators up to date on the academic and financial performance of the various segments of the institution.

Some special training in budgetary competence for all administrators and heads of units can prove extremely useful. Most higher education staff have very little background in financial management, as may be indicated by the following:

- patterns of tardiness in meeting deadlines;
- mistakes in completing forms or in computation;

- failure to prioritize the uses of discretionary monies;
- failure to communicate appropriate budgetary information to those concerned.

It has been found that a series of short workshops or courses held internally can much increase cost consciousness and financial competence generally.

6.7 Evaluation and auditing

Evaluation and auditing are currently the least developed aspects of financial management. With increased autonomy, higher education institutions have to be accountable for their academic and financial performance. While considerable educational evaluation is undertaken, very little of it relates the value of resources used to the resulting educational outcomes.

Although educational outcomes are not easily measured, nevertheless decisions have to be made, so there is certainly merit in quantifying where possible. There is no one absolute and correct way of costing, but if there are several ways to achieve an objective, then if the same costing principles are adopted, relative costs can be measured. Cost analysis should aim at summarizing net resource implications of an educational activity over a period of time, particularly if a change is involved. Cost per student per annum is a common measure utilized, as is cost per student hour.

At present, educational evaluation is usually undertaken by government advisers and inspectors. Quite separately, auditing is normally restricted to checking the probity of transactions undertaken by educational administrators. Ideally, the auditors should assess the efficiency and effectiveness of resource utilization by relating service outcomes to policy objectives (effectiveness) and resource utilization (efficiency). Since in education the major operating cost is teaching staff, cost-effectiveness is usually related to staff hours used and number of students benefiting.

In addition to the above, it is becoming more general for institutions to conduct their own self-evaluation, comparing performance both within the institution and with set strategic targets. It is advantageous to involve staff in setting targets and measuring actual performance.

Accountability exercises may be carried out by staff assessing work in other parts of the institution to their own, so as to engender a sense of corporate responsibility. The objectives of each course have to be clearly defined and the percentage set of students expected to succeed, as well as optimum teaching hour investment in each course, and the education processes to be used (e.g. audiovisual and practical aids increase cost-effectiveness). Once this task is completed, the information provides a stable database for the future which may be reviewed each year.

In the framework of accountability procedures, it is becoming common practice for institutions to publish an annual report which includes comparative data to show present and past results and budgets. Such reports are circulated not only to government departments but also to local authorities, industry and students.

Performance indicators can serve a useful role in the evaluation of the financial management of an institution, although it is clear that they do not tell the whole story.

A list of specific performance indicators related to financial management is given below for different tasks. These are intended only as examples. Nonetheless, they can be reviewed for their potential utility in the user's specific situation.

(a) Indicators relating to the sources of income of the institution

1. percentage ratio of government grants to total income;
2. percentage ratio of tuition fees to total income;
3. percentage ratio of foreign student tuition fees to total income;
4. percentage ratio of income from research grants and contracts to total income;
5. percentage ratio of income from other services to total income;
6. percentage ratio of income from residences and catering to total income;
7. percentage ratio of miscellaneous income to total income;
8. percentage ratio of surplus (deficit) to total income.

(b) Indicators relating to the financial strength of the institution

1. day's ratio of total general funds to total expenditure;

2. percentage ratio of long-term liabilities to total general funds.

(c) Indicators relating to short-term liquidity and solvency

1. ratio of liquid assets to current liabilities;
2. ratio of net liquid assets to total expenditure;
3. ratio of current assets to current liabilities;
4. percentage movement in net liquid assets in a year to net liquid assets at the commencement of a year;
5. days of total income represented by debtors.

6.8 Protection of finance

Of all the functions, this is the basic control function; it is the most traditional and by far the most widespread role of university financial managers. All the other activities are, at least to some extent, dependent on this task being satisfactorily performed. As management information systems and auditing procedures improve, financial irregularities will be detected more easily and the regulations can be made less onerous(8).

7. Changes in practices of management of higher education with special reference to financial management in African institutions

Although our primary concern is Africa, we shall provide some examples of managerial changes at the institutional level as well as in the area of finance from those industrialized countries which at one time or other colonized a number of African countries and thus left significant marks on the institutions of higher education in Africa. These are: the United Kingdom, France, and the Netherlands. We shall also give the example of Australia because this country has introduced significant changes in the management system to 'do more with less'. We shall cite examples from Africa, both Anglophone and Francophone, where changes in management have resulted in better utilization of resources. Management for us is an art of practice, and there is a lot to learn from good practices. In spite of the crisis faced by the institutions of higher education in Africa, some of them are rising to the challenge. We provide only a few of these cases below in this section. We feel strongly that 'examples are better than precepts'.

7.1 Examples from the industrialized countries

The United Kingdom

In the United Kingdom, the initial impetus to change was given by the 1985 Jarratt Committee to investigate university efficiency, which made the following recommendations:

- more businesslike structures;
- a strong central executive authority responsible for strategic planning;
- a Vice-Chancellor acting as a chief executive and having received management training;
- small high-level planning and resource committees;
- the use of performance indicators;
- staff appraisal and development;
- greater devolution of financial management to

Subsequently in 1988, a nationwide project funded by the government to computerize key areas of management information was begun. Institutions were required to collect core statistics which included data on students, staff, capital assets, equipment, financial resources, and management information so as to give proper support to academic departments in devolved budgeting.

Since the early 1980s government policy has been dominated by a number of factors, including the following:

- the concern to reduce public expenditure per higher education student;
- the need to increase efficiency by encouraging universities to earn income and also to be much more strictly accountable for grants received, a requirement which has become much more important in the 1990s.

The first round of cuts in the early 1980s ranged from 6 to 30 per cent, according to the institution. Some special arrangements mitigated the worst effects, such as early retirement compensation and the protection of priority engineering and technical programmes. Subsequently, strategies focused on separating resources for teaching and research, and making funding conditional on delivery.

The 1988 Education Reform Act gave greater autonomy for resource management of institutions, but set stricter accountability measures. It was expected that resources would likely be used more effectively if those responsible for educational services were given maximum discretion to deploy them in response to local needs.

The Universities Funding Council (UFC) implemented a system of funding whereby institutions put in bids for certain numbers of student places by broad bands of disciplines. In practice, universities were reluctant to bid too low and thereby force down the unit of funding even more. As a result, in 1991 the UFC abandoned the system and set only provisional targets. As of 1992, it was decided that for the next two years universities would be guaranteed only the number of funded student places allocated for 1991-1992. Any decisions on increases were to be based on the proportion of students at a university above the funded number.

In short, the government had found a way of securing expansion at low marginal cost and higher education institutions were obliged to accede in order to obtain their funds. Public spending per graduate in the United Kingdom is now lower than in most other European countries.

The UFC has published a code of practice for university internal and external audit, and supervises the financial health of institutions.

This restructuring of the mechanisms for funding the universities imposed great strains on the management of institutions, with a number of results:

- many of them devolved budgets to the departmental level, either including or excluding staff salaries;
- most institutions also appointed or increased the number of senior officers concerned with fund raising, industrial liaison and overseas students;
- more information was made available within the institution for accountability and decision-making purposes;
- the quantity and quality of comparative information was improved, particularly with the annual publication, *University management statistics and performance indicators*, which obliges institutions to ask questions and seek reasons for variance, thereby making it possible to compare expenditure on central administration, libraries, computers and premises;

- programme budgeting has been generally adopted and the cost per student per annum by discipline is now compared amongst universities.

Most universities have adopted some type of formula funding in allocating resources internally by using weightings (for example, 1 Ph.D. = 3 undergraduates for the purpose of staff, library and laboratory allocations), as well as norms and ratios. Some maintain central control over the establishment of staff positions. Others allocate all funds, after taking off the resources necessary for central administration, to faculties to be shared by consensus among the departments.

Thus there is a new emphasis on the department as a performer and the pressure of competition between departments. Management of finance is considered to be one of the critical tasks for the next decade. The role of finance officers in the United Kingdom universities is becoming increasingly important. There has been a rise in the need for professional administrators with the skills necessary for effective management within a rapidly changing higher education system, with new funding structures and new penalties.

In 1995 the government contribution has decreased further. The funding these days is based on a set of parameters: percentage of academic staff, number of students, number of graduates, percentage of students on continuing education, and quality of training and research. These measures have reduced expenditure by 15 per cent and are expected to reduce it further(7).

The Netherlands

After the introduction of the 1985 law on university biennial policy-making and planning, each university had to publish a planning document which served as the basis for discussions with the Ministry of Education. It was proposed that there be a three-year cycle of policy/budget/evaluation reports. Reports can lead to changes in policy, and policy or evaluation can change the budget.

The cycle proceeds as follows:

- each faculty prepares a strategic plan based on an analysis of its strengths and weaknesses in teaching and research from which it formulates goals;
- the university plan for the next four years is then drawn up at the central administrative level;
- the plan is subsequently converted to budget decisions which specify the allocation of resources to achieve specific goals: approximately 90-95 per cent is allocated to recurrent expenditure on teaching, education-related research, administration and maintenance;
- evaluation is carried out according to indicators such as the number of graduates by subject and level, supplemented by external visiting committees.

In the Netherlands, institutions receive a lump-sum budget to cover staff and maintenance based on the number of first-year students minus drop-outs, which they are free to spend according to their own preferences. However, salaries are limited by legislation and government approval is required for the highest posts. Investment is covered by project funds, and research funds are allocated on Full Time Equivalent (FTE) academic staff and according to past levels. Ex-post evaluation has been introduced to aid quality control. As in the United Kingdom, student numbers increased and the unit cost per student decreased.

This funding system has meant the following:

- institutions must adapt their capacity to changing demands and the job market;
- they must assess their output in terms of quality with the aid of Ministry inspectors;
- programmes of study are to be more flexible, i.e. modular;
- each student will have vouchers for a given number of modules at different times in his or her career;
- each institution will also be given a mission budget to finance innovative projects and centres of excellence.

The reaction of the universities to the new funding system seemed to depend on how insecure they felt.

The University of Amsterdam experimented with zero-based budgeting, which requires the justification of every proposed expenditure, beginning theoretically from a base of zero, as defined earlier.

On the other hand, the small and new University of Twente decided it would have to make some very radical changes if it was to survive. It divided its annual government funding into 85 per cent for distribution to the faculties and 15 per cent for incentives and new strategic areas. Faculties were pressured to seek income and rationalize their programmes by making them cost centres, to which all costs were charged (even overheads), and budgets (in line with the national funding system) were output based. A new accounting system was introduced and a separate business organization established. The system has been working for several years now and is acknowledged to be the most advanced in the Netherlands. The University no longer has financial problems, self-generation of income is increasing rapidly and so are student numbers. However, this entrepreneurial style of financial management brings other problems: faculty staff have to be given a great deal of training and explanation. Also, in order to be able to establish output-related costs, there must be an efficient management information system which can give precise results. However, system-wide, the results have been as follows:

- between 1975-1990 student numbers increased 40 per cent;
- the unit cost per student decreased although the total budget remained unchanged;
- teacher salaries have declined in real terms, and staff in economics, accountancy and information technology are difficult to recruit;
- there is a trend to interdisciplinarity, and due to recent mergers, profiles of institutions are similar instead of being diverse(7).

Australia

In Australia, the 1987 Dawkins and 1995 Hoare reforms stipulated the following:

- a unified national system;
- amalgamation to form larger units;
- an increase in the provision of student places and improved flow rates;
- an emphasis on science, technology and business administration;

- efficiency and effectiveness.

Through a process of mergers, 17 universities and 36 colleges of advanced education have been reduced to 36 universities with an average enrolment of approximately 20,000. Amalgamation has necessitated new governing bodies and regulations, as well as the combining of administrative units, computer centres and staff policies. Strategic planning is now routine. Vice-Chancellors have acquired chief executive status. Departments have been rationalized, sometimes into four or five major groups headed by pro vice-chancellors specifically in charge of management. Compliance with national priorities has been obtained by tying funding to educational profiles negotiated every three years.

It is interesting to note that the results have been mixed:

- in the short term, mergers cost rather than save money; but in the long term economy is achieved, interdisciplinarity is facilitated and quality improves;
- an amalgamation of different cultures, different rules and infrastructure, sensitive policies and administrative systems has been difficult;
- expansion has taken place in the cheaper courses;
- academics complain of overcrowding and heavy teaching loads;
- there is a homogenization taking place, as in the Netherlands, due to competition to produce the stipulated research profiles and graduates.

In respect of finance, the Federal Education Minister introduced some changes in August, 1996. These changes have seen the introduction of 'efficiency dividends', or percentage cuts to operating grants of the order of 5 per cent over three years and which are likely to be ongoing; and an increased emphasis by the federal government on the private benefits of higher education.

The practical impact of this new emphasis is that student contributions have been increased, with HECS (the Higher Education Credit System, HECS, is a student charge either paid up front or paid through the taxation system once a student earns a certain amount, initially at a flat rate of 22 per cent of total cost, increased recently and differentiated, based on course costs and potential future earnings of the graduate) charges raised and required to

be repaid earlier; and opportunities and incentives have been widened to allow universities to charge some groups of domestic students full fees, while all foreign students are fee-paying.

It is inevitable that the higher education sector in Australia will experience further deregulation and we will see a progressive weaning from government support and influence. Universities will need to turn for survival to a society which is itself undergoing rapid changes. In some respects, governments at the state and federal level have lessened control over the sector. This is particularly so as the former advanced education sector, which was subject to close involvement by the states, combined with universities to achieve substantial autonomy. There has been a constant testing of the balance between institutional autonomy and government involvement and regulation. Australia's higher education sector had its roots in the British system, and state and federal governments were well aware of their limitations in direct university management. Nevertheless, over the years they have exercised considerable influence through setting legislative parameters and using financial carrots and sticks. Examples of the former included the establishment of a national climate for industrial relations, restrictions on student intake characteristics through profile negotiations, and legislation on matters such as age and sex discrimination and occupational health and safety. The exercise of financial influence was particularly noticeable in areas such as quality assurance, where institutions were in effect rewarded for doing what they ought to have been doing in any case.

The introduction of performance-based funding for research has also had powerful repercussions on the way many institutions manage and reward their internal research efforts. The new federal government has signalled that it intends to further the trend towards decreasing intervention in university affairs while expecting increased efficiency, quality and accountability from institutions. In line with previous governments, it will expect universities to achieve these results through adoption of modern management practices(9).

France

In some of the countries of continental Europe (Austria, Belgium, France, Germany, Greece, Italy, and Portugal), ministries of education generally prescribe budgets, student admissions and fees, buildings and size of staff. They also validate courses and set the formal structure of university management. Initiatives to improve efficiency therefore usually come from

governments. There are exceptions, and some relatively autonomous institutions do exist. Notable examples are the French *grandes écoles* which are, in some cases, privately funded and are administered by directors and representatives of the funding authority and of the students.

The extent of centralized control in continental Europe is decreasing as, for instance, recent developments in France show.

In 1989, the Ministry of Education initiated new procedures for joint planning by the Ministry and the higher education institutions. They have to prepare and implement an institutional development project for a four-year period. This procedure is intended to strengthen the autonomy of the institutions, the consistency of their development policies and the role of the head of institution. Within the framework of overall national guidelines, the state and the institutions commit themselves to certain objectives and means laid down in a contract to be signed by the state and the institutions. Higher education institutions receive a part of their financial allocation (around 10 per cent) on the basis of their commitments and their intended activities as stipulated in the contract. However, the majority of the resources are still allocated on the basis of criteria linked to the fulfilment of the basic mission of the institution, which is teaching and research (see below).

More recently, within the framework of a national policy towards decentralization, called the State-Region Plan, the regional and local authorities also contribute to the financing of higher education institutions, in particular with regard to new infrastructural projects and the rehabilitation of buildings and equipment.

The granting of increased autonomy is linked to a posteriori evaluation. As a consequence, the National Evaluation Committee (CNE), which is independent of political and administrative structures, was created and placed under the authority of the Head of State. Its explicit role is to provide more transparency in French higher education and to issue qualitative information on higher education institutions, including both universities and *grandes écoles*. It appraises the major activities and the functioning of institutions: research, initial and continuing education, management, governance and institutional policy. The CNE also examines the state of the art in a particular discipline. It decided to adopt a pragmatic approach in gathering written information, which is complemented by expert visits. A methodology indicating the basic information to be furnished by the

institutions, the Ministry of Education or national research bodies was worked out by the French Conference of University Presidents. External experts – national and foreign academics, researchers and representatives from industry – form the committee for each institution. They study the documentation provided and visit the institution for discussions. Their report is then submitted for comment to the head of institution and ultimately published. The CNE has accumulated considerable experience in institutional evaluation and is currently reconsidering its methodology before moving on to a second phase of return visits to assess progress.

The Ministry and universities have been co-operating with respect to the computerization of university administration. In 1992, 85 institutions were grouped under GIGUE (Group for Computerized Management) to study and develop computerized systems for staff management, etc. It is intended that the new systems of computerized administration contribute to the establishment of a central database at the institutional level, but that departments will have free access and wide autonomy as regards data managed at the departmental level. These systems cover a student information system (SISE: application for organization and management of programmes and students), management of posts and personnel (POPPEE, HARPEGE: harmonization of the administration of personnel) and financial management (NABUCO: new budgetary and accounting system). This innovation is intended to reinforce institutional autonomy and management capacity.

In France, the state provides the majority of financial resources. Several systems for the allocation of financial means have been used successively. In the past, core funding was allocated by means of the GARACES norms distinguishing between three types of allocation: teaching, recurrent expenditure and investment. The teaching allocation was calculated on the basis of teaching hours not covered by the statutory assignments of the existing academic staff.

Since 1993, the SANREMO system (Analytical system of financial allocation) has been in operation. Its objective is to take into account the real recurrent costs and differences among groups of disciplines with regard to student costs and to ease out differences in staffing levels existing among institutions. Student/staff ratios differentiated by level of study and group of discipline have been defined. It is intended to redeploy academic staff from those institutions with excessive staffing levels to those which lack staff.

With regard to the financial difficulties of the state, and in the light of ever growing student numbers, institutions have been trying to increase their private income. In 1994, 44.43 per cent of total income was other than governmental funding: additional revenue may come from sources such as:

- student fees: 9.95 per cent;
- contract research for private and public enterprises: 6.06 per cent;
- subsidies in kind, or in nature, from local or regional authorities: 4.92 per cent;
- training tax (1.5 per cent of the salaries to be paid by the enterprises): 2.34 per cent;
- continuing education: 7.99 per cent;
- studies: 6.41 per cent;
- interest rates: 1.65 per cent;
- commercialization of products and publications: 3.80 per cent; others: 4.72 per cent.

The financial autonomy of institutions allows for the establishment of financial reserves from end-of-the-year surpluses. They are also allowed to carry over parts of the core funding and to spend it on investment and equipment items. Within certain limits, institutions may also invest in the public capital markets and gain income from interest.

Student fees and fees for examinations form part of the private income; however, the amount is determined by the national administration. Institutions have the right to set student fees for university diplomas which are not accredited by the Ministry, and all other services they offer within the framework of their basic mission.

7.2 Examples from Africa

As already detailed, the African region has been particularly hard hit by the world economic crisis, the fall in primary commodity prices and the consequences of structural adjustment drastically reducing state finance of higher education. It is recognized as having serious financial and management problems in higher education. Social demand is high but institutions produce too many graduates of low quality and relevance and generate too little new knowledge and direct development support.

During the 1980s many governments came to recognize that too high an enrolment, combined with an imbalance in disciplines, was causing problems of low quality, unemployment and unrest, in addition to being increasingly difficult to fund.

Generally, higher education management has been occupied with trying to address this situation. Measures tried include the following:

- the reduction of unit costs by encouraging students to live off campus (Ghana, Tanzania, Uganda);
- the establishment of bookshops and cafeterias as self-financing enterprises (Côte d'Ivoire, Uganda, Zambia);
- the creation of student loan schemes (Botswana, Ghana, Kenya, Lesotho, Malawi, Rwanda, Zambia, Zimbabwe);
- the payment of academic staff by lecture output (Uganda).

Such measures, although useful, are evidently not enough to arrest the decline in quality of teachers, buildings, equipment and maintenance. Some universities in the region depend heavily on donor assistance for their very survival.

In a situation where little or no increase in budgets can be expected, a major drive is now being undertaken to improve management efficiency. National governments, universities, the Association of African Universities (AAU) and aid agencies are all concerned with it. Several of the universities in the region have drawn up strategic plans according to which aid from donor agencies can be targeted. The Eduardo Mondlane University (Mozambique), the Universities of Ghana (Legon), Zambia and Tanzania, among others, have prepared strategic plans with different degrees of success.

The Windhoek declaration of 1992 (August) adopted by high-level policy-makers and vice-chancellors of universities of the region had the following principal elements for improving management of the institutions of higher education:

- maintenance of information systems and analysis;
- devolution of financial responsibilities to cost centres;
- diversification of funding sources;
- 'managerialism' in operation of universities;

- rational allocation of resources;
- clear criteria for cost reduction;
- regional co-operation to reduce the costs of some of the more expensive programmes;
- establishment of a fund-raising unit.

We give below the special cases of changing managerial practices in the institutions of higher education.

Nigeria: the case of Obafemi Awolowo University

Government in Nigeria has established criteria and standards for higher education through various Boards and Commissions and particularly for university education through the National Universities Commission. With reference to quality of degrees, the Commission laid down the minimum standard rule; in effect all universities, whether state owned or federal, offering various types of degrees, must maintain a minimum level of course outline, minimum number and categories of lecturers, minimum space and facilities in the lecture room, the laboratory and other teaching needs, a specific academic staff to student ratio, a specific supporting staff to student ratio, a minimum number of volumes of relevant books in the library for the various courses etc., for their programmes to be accredited. Out of 836 undergraduate programmes examined for their quality between March 1990 and June 1991, only 185 qualified fully for accreditation. Seventy-nine were denied and 572 received interim accreditation only.

The management structure in some of the universities has undergone tremendous changes over the years in response to financial regulations, enlarged size of the university and the need to involve the rank and file in the decision-making process.

At present government allocates funds to the universities based on total student enrolment as well as the distribution of students by discipline. Each science-based student, for example, attracts double the fund an arts student brings to the University. Also the number of postgraduate students enrolled influences total fund allocation. Government sets guidelines for expenditure within the University to ensure funding prioritization.

The library fund is separate and allocated directly and exclusively for library use and it constitutes 10 per cent of total annual recurrent allocation

to the University. In general, a proportion, not less than 60 per cent, must be allocated to direct teaching units as compared to central administration; academic units must generally receive a large proportion of supplies and expense fund as compared with non-academic units. Government has set a limit of percentages of staff categories in both academic and non-academic units. The ratio of professor plus readers to other distinct categories of academic staff is clearly provided. This should not exceed 20 per cent of the total figure.

Government monitors compliance of expenditure profile through an annual budget estimate hearing, where all the various relationships in spending over the previous year are cross-checked.

In the Obafemi Awolowo University, fund management is co-ordinated by a University Committee, the Finance Sub-Committee of the Development Committee. Each unit prepares its annual estimates, and defends such estimates before this committee that prepares the university-wide estimate. The collated estimate is then processed by the Directorate of Planning, Budgeting and Monitoring Unit, which ensures that the guidelines of NUC are complied with in the presentation of the estimate. The outcome document is first presented before the Development Committee, then Senate, and finally Council, before presentation to government. Funds received from government and other sources are allocated to individual units of the University through the same process, i.e. by the Finance Sub-Committee, and finally presented for approval of the University Council through the channel mentioned above. Monies received through donation, endowment etc., are presented to Council for decision on their use.

In addition to government allocation, the financial situation in the University is affected by fund-raising efforts and endowment activities at the local level; external and international sourcing of funds for research and project development; investment of university funds, management of investment income, management of cost of services and its effectiveness, budgeting methods, budget and expenditure control.

The University has adopted an aggressive approach to fund raising, using people with dependable contacts and a tremendous amount of goodwill, and has been paid off bountifully. A computer engineering complex abandoned 10 years ago when funds dried out, has been reactivated for completion in 1994. A sum of Naira 40 million, part of the fund

generated during a special fund-raising activity in 1992, is being used for the completion. Similarly, investment of university funds is a worthwhile venture. The more diversified the investments, the less the risk and the surer the aggregate profit. The University has currently renovated 13 kilometres of campus roads with asphaltic concrete from funds generated from investment. The facilities in the sports complex were refurbished from interest on investment income in 1993. These and a few more projects are undertaken independently of government grant and to a large extent constitute autonomy for the campus development programmes of the University(10).

Kenya: The Kenyatta University

In Kenya the financial situation in the universities worsened when the first cohort of the 8:4:4 system entered the University in the 1991 academic year. The student population increased four-fold, but financial resources by only 30 per cent at current prices. As a result, in 1991, direct cost recovery from the beneficiary was introduced in Kenya. A tuition fee was introduced, as well as a student loan scheme. Students who are unable to pay are supported by the government through loans and bursaries. The details of the operation of the student loan scheme are as follows. The unit cost per student per year is based on a weighted average of the different public universities, fixed at Kshs.120,000. The government provides to the needy students Kshs.42,000 as a means-tested loan. The students in turn pay Kshs.16,000 to the University for tuition. Of this amount, Kshs.8,000 comes from the loan and the balance is paid directly by the students. Those who cannot pay are assisted with a means-tested bursary of the same amount or less. Food, accommodation and books are paid for at market rates, with funds given to the needy through the loans scheme. Those who are able to pay are encouraged to pay the full cost. The higher education loans board administers the loan disbursement. In 1995/1996, the loan amount accounted for Kshs.18,000 in food, Kshs.7,000 in accommodation, Kshs.8,000 in tuition and Kshs.9,000 for books.

It was observed that a university could generate between 35 to 40 per cent of its operating revenue. Indeed, the Kenyan universities have reduced the burden on the government during the last few years. Revenue income from non-government sources has increased to 31.6 per cent in the University of Nairobi, 30.8 per cent in Egerton University, 25.7 per cent in Kenyatta, 17.5 per cent in Maseno, 17.1 per cent in Jomo Kenyatta, and 16.4

per cent in Moi. The following measures have been adopted for improving financial management: increased revenue from non-government sources, closing of inefficient programmes, improving student/staff ratios, improving utilization of facilities, and reducing expenditure on student welfare.

The Kenyatta University, in particular, had set up the following income-generating offices: the Bureau of Training and Consultancy (which provided 30 per cent of its income to the University overheads), the University Press, the Department of Home Economics, and the Fine Arts Department. These had all set up special units for generating income for the University. The University also introduced 'bee-keeping' and 'pig-keeping' programmes. Students have been encouraged to open 'kiosks' in the hostels to earn money for themselves. Individual professors having external research contracts have to surrender 15 per cent of the contract money to the University. The University has introduced student fees and reduced free board and lodging. All these measures contributed to the reduction of the state burden.

Ghana: The University of Science and Technology, Kumasi

Financial management of universities in Ghana is now following the norms and guidelines prepared by the Ministry of Education and the Ministry of Finance and Economic Planning. The University of Science and Technology in Kumasi now prepares budgets indicating the various programmes, and expenditures are grouped under appropriate cost centres using the norms for resource allocation. In 1994, the allocations were as follows: direct teaching: 15 per cent; general education: 15 per cent; library: 10 per cent; central administration: 6 per cent; staff and students' facilities: 5 per cent; municipal services: 15 per cent; miscellaneous: 4 per cent (15 per cent of budget allocation is added for research). To arrive at the estimated teaching costs, student/teacher ratios are used following norms which vary from 18:1 in the Faculty of Social Sciences to 5:1 in Medical Sciences. The student numbers are expressed in full-time equivalent (FTE) and teaching hours are computed on the basis of contact hours. The University has also attempted to use norms for staff mix for teaching, research and non-academic staff. Goods and services costs are provided on the basis of personal emoluments of teaching departments: 30 per cent for science-based and 20 per cent for arts-based departments. The University has a well-organized 'Business operations' programme which earns income

through production units, consultancies, guest houses, university schools, university hospital, swimming pool and other various commercialized units.

As was indicated at the beginning of this section, the University of Ghana, Legon, has prepared a strategic plan to improve upon its management, especially the financial management of the University. However, the plan met difficulties in its implementation because of student strikes in 1994. However, in 1995 the programme was revitalized with the document 'Vision 2000 Plus', which hopefully will be the guideline for improving efficiency in the University's management.

Zambia: the University of Zambia

Concern for improving managerial effectiveness in the University of Zambia started in 1989 with a review of the University's functions prepared by the United Kingdom Overseas Development Administration (ODA). By 1992 an exercise in strategic planning had begun. A Strategic Planning Working Group was set up to examine, among other items, the utilization of existing resources and means of income generation. In 1993 the Plan was proposed. This included such objectives and targets as reduction of student intake, raising fees, reorientation of academic activities, including closure of some unpopular and unnecessary courses, reduction of non-academic staff, and development of alternative sources of income. Staff and student disturbances interrupted the implementation of the Plan in 1994. However, the University has been successful to a certain degree in reducing student intake and staff numbers. It has also been able to generate additional income. The assistance from the Government of the Netherlands in the form of a substantial grant to set up a computerized management information system is directed towards improving managerial effectiveness of the University, especially the management of finance.

The above conceptual analysis and the examples of practices allow us to draw up a set of lessons for the higher education systems of Africa. These are given below.

Senegal: The University Cheik Anta Diop

In the light of ever increasing student numbers, and a diminishing overall quality of instruction, a national conference on the improvement of higher education was organized in 1992. This national concerted mechanism

has led to a number of measures being implemented at the University Cheik Anta Diop.

First, the objective of a better control of student flows was established. As a consequence, students have to complete the first cycle diploma (two years of study: DEUG) within four years, otherwise they have to quit the University. Student numbers have already been reduced from 25,000 to 20,000 (in 1996), and the objective is to bring down the number to 15,000 by the year 2000.

Second, the system of student support has been completely revised. Before 1994, any student registered at the University was eligible for student support. Since then, only certain categories of students benefit from it: those who are eligible for receiving a national scholarship, those who have paid a contribution of 250.000 FCFA per year, and those who are able to prove their need. As a result, beneficiaries of the support programme were reduced from 25,000 to 9,755 students by 1996. This will allow a reduction in the former debt of 3.5 FCFA.

With regard to the admission of students to the University residence, students are no longer allowed to share their rooms with other students. First-year students older than 23 years are no longer accepted in a residence, and no student is allowed to stay longer than five or six years. With regard to food services, the University has sub-contracted the preparation of meals for the students to a private firm. Scholarships no longer cover the whole year, but only 10 months.

Third, the University is actively pursuing a policy of generating supplementary income. Student fees for nationals are still relatively low, i.e. 4,640 FCFA in 1996; however, foreign students have to pay 150,000 FCFA for entering the faculties and 300,000 for joining the selective higher schools.

Côte d'Ivoire: Overall systems reform

In Côte d'Ivoire, as in other Francophone African countries, the system is characterized by strong social demand, limited national resources and reduced labour market entry. In 1985, a national meeting on education (*Etats généraux de l'éducation*) was held which established the aim of privatizing student canteens and abolished the rule of free transportation. A higher

education reform initiated in 1993 established the objectives of quantitative expansion, qualitative improvement, adjustment and a modification of the legal framework.

The improvement of the management of higher education institutions constitutes a major policy objective of the reform. With this in mind, Côte d'Ivoire intends to implement a contractual policy between the state and the higher education institutions to establish a national system of evaluating the performance of institutions, and to conduct an administrative reform of institutions aimed at a strengthening of the role of administrative heads and the admission offices. Also, the post of a Vice-President in charge of strategic planning was created within the administrative structure.

In 1993, the Ministry prepared a national development plan which laid down the overall objective of system expansion. It was decided to separate the National University of Côte d'Ivoire, which had grown too big and thus become an unmanageable entity, into three separate institutions. It was also decided to create several so-called antennae in the regions, which are expected to become fully fledged institutions in the near future.

The Ministry is currently preparing the setting up of an integrated information system linking institutional databases on personnel, study programmes, research programmes, equipment, students and finances with a national database located at the Ministry. Such an information system would help to identify institutional needs more easily and in a more reliable manner, and to produce a wide range of statistics and indicators needed for the monitoring of the system.

Concurrently, budgetary and operational audits of some *grandes écoles* have been carried out and this has led to the creation of a rationalization plan for this sub-sector of higher education in Côte d'Ivoire.

In order to create an incentive for the generation of private income, the Ministry has made the provision of a special account, so-called Account 44, which allows the Institution to account for income from contracts with the private sector.

8. Lessons learned

Lesson 1: The importance of management capacity in the university

One of the major lessons is that governments neglect the importance of management capacity in institutions at their peril. The introduction of necessary reforms and economies may be hindered by a lack of expertise to implement directives, by inertia or even by outright resistance.

Lesson 2: The need for management expertise at the government level

Another major lesson is the importance of institutional management expertise at government level. In those countries with centrally controlled systems, institutions must wait for the government to issue its directives or seek approval. Ministries should ensure their capacity to give adequate support in all domains; this means that they should play a facilitating as well as an interventionary role.

Lesson 3: The need to pool experience at the international or regional level

The amount of support in the form of expertise and funding given in certain Western industrialized countries by governmental agencies for successful management reform has been extremely high. In this respect, groups of countries could profit from the setting up of regional forums to pool their expertise and experience in the field of improving higher education management. The Association of African Universities has such an objective and an impetus needs to be given to their work.

Lesson 4: Internal understanding and acceptance

The proposed changes must be seen to be necessary and should be introduced in a comprehensive and phased package. The integrated nature of institution activities and management should be taken into account, so that funding, structures and external pressures are all taken into consideration. This will ensure the best chance of predisposing the institutions to accept change.

Lesson 5: Analysis of management structures and procedures

Institutional management practices have an impact upon all the departments of the institution and can ensure that the appropriate actions are taken. Ideally, reforms should be preceded by an analysis of management structures and procedures in order to ensure that they are adequate.

It is essential to have a sufficiently powerful executive level to ensure overall institutional planning, co-ordination, evaluation and accountability.

Lesson 6: Better linkages between the institution and its environment

Another means of opening up the institution and reinforcing the executive level has been the use of Governing Boards containing a majority of external members as steering committees. This allows institutions to have a stronger connection with their environment. Governments can create legislation that will stimulate institutions to form linkages with the external environment.

Lesson 7: The need for accountability measures

As far as strategies to improve institutional management are concerned, it would seem that it has been realized by governments and the public in many countries, that not enough emphasis has been put on accountability measures.

Evaluation on its own without follow-up exerts insufficient pressure on the institution to change.

Government agencies, buffer organizations and good executive-level management can ensure accountability, providing that the necessary data are available and are reliable. As we have seen, data are very important: relevant, reliable and timely data have been the basis of successful development and change in both self-regulatory and centrally planned systems. Considerable work has been done on indicators from which all countries can benefit.

Lesson 8: Financial planning and the budget

Financial plans and budgets serve an essential function in the institution

as a management tool for co-ordination, control and evaluation. In the context of the current financial crisis within which most institutions find themselves, such tools are extremely important, both to analyze the current situation and to make appropriate plans for the future.

Lesson 9: The evolution of the financial management process

The financial management process, that is the mobilization, allocation and utilization of financial resources, has evolved over time.

First, there has been a shift from the line item budget which steers through the control of the input of resources, to accountability for the output.

Second, formula funding methods are based upon indicators representing a combination of both input and output factors which can be used for the teaching, research and public service functions of the institution.

Third, incentive budgeting can be used to provide additional funds to achieve specific goals determined and assigned by the state.

Lesson 10: Increasing efficiency

It is true that in many countries the financial resources allocated to higher education are deemed insufficient in absolute terms, given the rapid growth of enrolments. However, it is possible that significant improvements could be achieved if existing resources were managed and utilized in a more efficient manner. Very few institutions operate with modern financial management practices.

In most western industrialized countries, it is now accepted that the introduction of flexible budgeting and disbursement procedures is a prerequisite for institutions seeking to increase the cost-effectiveness of their programmes. The modern view of the organization describes individuals as having different goals and proposes that only by harnessing these can the organization increase commitment.

Even within the most well-run institutions there is normally some excess capacity. This means that there is some room to manoeuvre within budgetary constraints, and this knowledge can provide an incentive for staff to attempt to achieve more under an existing budget allocation. Research has shown

that better performance can be obtained if employees have a say in the budget which will subsequently be used to evaluate their performance. This is the first major line of current thinking in financial management for institutions under self-regulation and accountability policies.

Lesson 11: Centralization versus decentralization

The centralization of financial planning ensures that the aims and objectives of the institution as an entity are met. This can be achieved by means of the following:

- a strategic plan to provide a framework and an information system designed on programme budgeting lines to relate results to costs;
- consideration of alternative patterns of expenditure (including some zero basing which gives the possibility for cutbacks or growth);
- preparation of a budget that represents the optimal allocation for achieving objectives, expressed in terms of performance indicators – by emphasizing the relation of resources to desired ends and options, a clear framework is provided for systematic thinking on resource management.

Centralized hierarchical control is increasingly being replaced by an arm's-length relationship. For example, the search for additional sources of financing is of marginal utility for institutions which have no control over the number of new students. Also, if income diversification is to be effectively promoted, institutions which are successful in raising additional resources must be allowed to keep them rather than being compelled to transfer them to the Treasury, as is standard practice in some countries.

How much financial devolution there should be to the departments and other basic operating units will be one of the key management issues of the 1990s.

There are some arguments in favour of more departmental autonomy:

- it will encourage a greater sense of responsibility in the use of resources, since opportunity costs are more easily appreciated in small decision-making units;
- departmental loyalty is more likely to encourage individual members to seek outside funds for the benefit of the unit as a whole;

- comparisons of performance indicators between independently managed departments can help central administrators judge the relative efficiency with which different activities are being carried out.

However, there are also some arguments against departmental financial autonomy:

- the smaller the cost centre, the less likely it is there will be staff with the necessary expertise to take meaningful resource allocation decisions;
- if too much time in academic departments is spent on management issues, this will conflict with the performance of central academic tasks;
- decisions on academic staff salaries cannot be fully delegated to small departments because they constitute such a large proportion of total costs that relatively minor variations in individual salaries can have a major effect on the finance of a relatively small cost centre. In many countries, the main decisions on the academic staff establishments are still taken outside otherwise autonomous universities for similar reasons;
- departmental financial autonomy also requires an up-to-date computerized management information system to keep all concerned informed and provide the necessary continuous monitoring and control system.

Lesson 12: Maintenance of momentum

Once implementation has begun, measures should be put in place to ensure that momentum is maintained. Deadlines, feedback and targets should be established. It should be noted that the length of the time period for consolidation should not be allowed to be a resistance manoeuvre.

Similarly, governments in their role as client and supervisor should try to establish a policy of continual search for improvement. Systems that have remained unchanged for a long period of time tend to perceive demands for reform as a disruption, rather than as part of the normal pattern of governance to keep the system up to date. Adaptation and acceptance of change will be an increasingly critical factor in institutional efficiency in the coming years.

References

1. Tavernier, K. 1996. *Strategic management in universities.* K.U. Leuven: Belgium, August 1996 (Mimeo).
2. Ade Ajayi, J.F. et al. 1996. *The African experience with higher education.* The Association of African Universities, Accra, Ghana.
3. UNESCO-BREDA. 1992. *Future directions for higher education in Africa.* UNESCO-BREDA: Dakar.
4. Coombe, T. 1991. *A consultation on higher education in Africa: A report to the Food Foundation and the Rockefeller Foundation,* Institute of Education: London.
5. Sanyal, Bikas C. 1995. *Innovations in university management.* Paris: UNESCO/International Institute for Educational Planning. UNESCO Publishing.
6. Sanyal, Bikas C. 1996. *Recent changes in higher education management: the international context.* Paper presented at the International Workshop on Higher Education Policy, Haikou City, Hainan Province, People's Republic of China, 18-22 November, 1996. mimeo. Paris: UNESCO/International Institute for Educational Planning.
7. Sanyal, Bikas C.; Martin, Michaela. 1996. *New strategies for financial management in universities: the experience of OECD member countries and Latin American countries.* Paper presented at the Regional Conference on Strategies and Policies for the Transformation of Higher Education in Latin America and the Caribbean, held in Hainan, 18-22 November, 1996, organized by CRESALC, UNESCO, Caracus (mimeo).
8. Williams, Gareth; Sanyal, Bikas C. 1996. *Financial management in higher education: issues and approaches.* Paper presented in the sub-regional intensive training course on Institutional Management in Higher Education, 14-29 March, 1996, Nairobi, Kenya. Paris: UNESCO/International Institute for Educational Planning.

9. Coaldrake, Peter. 1996. *Recent Australian reforms in higher education management in an international context.* Paper presented at the International Workshop on Higher Education Policy, Haikou City, Hainan Province, People's Republic of China, 18-22 November, 1996. mimeo. Paris: UNESCO/International Institute for Educational Planning.
10. Adebowale Omole.1995. "Institutional autonomy and accountability". In *Institutional management in higher education in Western Africa* by B.C. Sanyal et al., Paris: UNESCO/International Institute for Educational Planning.

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Higher education systems around the world are going through a financial crisis. In Africa this crisis has been more serious because of the overall economic crisis and the imposition of the structural adjustment programmes by the international donor agencies. This has called for better management of financial resources. The booklet describes the techniques available in this area. It illustrates how to generate new resources and how to utilize existing resources more effectively. Examples of '*good practices*' in some industrialized countries are given, but the overall emphasis is on '*good practices*' observed in Africa. In its conclusion, the booklet lists the lessons learned from the different experiences.

The authors

Bikas C. Sanyal joined the International Institute for Educational Planning (IIEP), Paris, in 1969 where, in addition to training educational managers, he has directed research programmes on *Higher Education and Employment* (1972-84), *Technological Development and Implications for Educational Planning* (1985-89), and *Institutional Management in Higher Education* since 1990. He is also the author of a large number of books, monographs and papers on educational policy and planning. Mr Sanyal is currently Senior Adviser at the IIEP.

Michaela Martin is a Programme Specialist at the IIEP working on the research programme on *Institutional Management in Higher Education*. Prior to working at the IIEP, she was Research Assistant at the European Centre for Strategic Management of the University at Brussels from 1988 to 1990.

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